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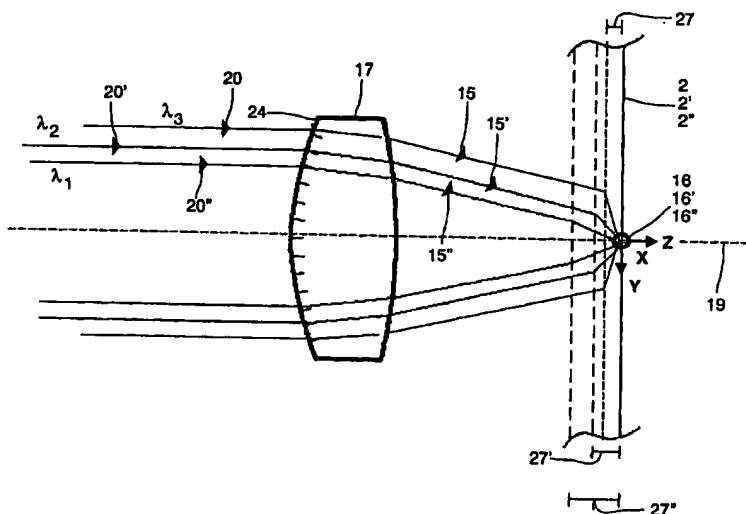
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(54) Title: OPTICAL SCANNING DEVICE



(57) Abstract: An optical scanning device (1) for scanning three information layer (2, 2', 2'') with three respective radiation beams (4, 4', 4'') having three respective wavelengths ( $\lambda_1$ ,  $\lambda_2$ ,  $\lambda_3$ ) and polarizations ( $p_1$ ,  $p_2$ ,  $p_3$ ). The three wavelengths differ from each other. At least one of the three polarizations differs from the others. The device comprises a diffractive part (24) including a pattern of pattern elements which have one stepped profile for forming three diffracted beams (15, 15', 15'') from the three radiation beams, the part comprising birefringent material, sensitive to the three polarizations. The stepped profile is designed such that the heights ( $h_i$ ) of the steps of a pattern element introduce phase changes that equal at least two different multiples of  $2\pi$  for one ( $\lambda_1$ ) of the three wavelengths and equal at least two different phase changes modulo  $2\pi$  for one ( $\lambda_2$ ) of the two other wavelengths.

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# INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/IB 02/05624

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JP 2001209966	A	03-08-2001	NONE	
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**A. CLASSIFICATION OF SUBJECT MATTER**  
IPC 7 G11B7/135 G02B3/08 G02B5/18

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)  
IPC 7 G11B

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

PAJ, EPO-Internal

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	PATENT ABSTRACTS OF JAPAN vol. 2000, no. 25, 12 April 2001 (2001-04-12) & JP 2001 209966 A (PIONEER ELECTRONIC CORP), 3 August 2001 (2001-08-03) cited in the application abstract	1, 15
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☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
E	<p>WO 03 060892 A (DE VRIES JORRIT E ;HENDRIKS BERNARDUS H W (NL); KONINKL PHILIPS EL) 24 July 2003 (2003-07-24) the whole document</p> <p>-----</p>	1,15